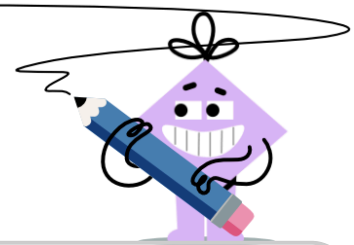
Name ______________________

mobius

Exponential Function Solving - Decay (Discrete) Equation to Value at Time



1 Solve for the final cash given this model of a balance of a charitable endowment (weekly disbursements)?

$$P = 300 \cdot (1 - 0.04)^{(5)}$$

A $P = P_0 \cdot (1-r)^{(t)}$	B $1 + P = \frac{P_0}{(1-r)^{(t)}}$
C $0 + P = P_0 \cdot (1+r)^{(t)}$	D $6 + P = \frac{P_0}{(1-r)^{(t)}}$

2 Solve for the final concentration given this model of a decline of a toxin concentration (daily dialysis)?

$$C = 300 \cdot (1 - 0.07)^{(9)}$$

A $3 + C = C_0 \cdot (1+r)^{(t)}$	B $C = C_0 \cdot (1-r)^{(t)}$
C $4 + C = C_0 \cdot (1+r)^{(t)}$	D $6 + C = \frac{C_0}{(1-r)^{(t)}}$

3 Solve for the final population given this model of a decline of a whale population (yearly breeding cycle)?

$$P = 800 \cdot (1 - 0.04)^{(5)}$$

A $P = P_0 \cdot (1-r)^{(t)}$	B $7 + P = P_0 \cdot (1+r)^{(t)}$
C $2 + P = P_0 \cdot (1+r)^{(t)}$	D $8 + P = P_0 \cdot (1+r)^{(t)}$

4 Solve for the final concentration given this model of a decline of a toxin concentration (hourly dialysis)?

$$C = 800 \cdot (1 - 0.05)^{(9)}$$

A $C = C_0 \cdot (1-r)^{(t)}$	B $8 + C = C_0 \cdot (1+r)^{(t)}$
C $9 + C = \frac{C_0}{(1-r)^{(t)}}$	D $3 + C = \frac{C_0}{(1-r)^{(t)}}$

5 Solve for the final population given this model of a decline of a whale population (yearly breeding cycle)?

$$P = 400 \cdot (1 - 0.09)^{(2)}$$

A $P = P_0 \cdot (1-r)^{(t)}$	B $6 + P = P_0 \cdot (1+r)^{(t)}$
C $2 + P = P_0 \cdot (1+r)^{(t)}$	D $3 + P = \frac{P_0}{(1-r)^{(t)}}$

6 Solve for the final concentration given this model of a decline of a toxin concentration (daily dialysis)?

$$C = 800 \cdot (1 - 0.02)^{(9)}$$

A $2 + C = C_0 \cdot (1+r)^{(t)}$	B $C = C_0 \cdot (1-r)^{(t)}$
C $0 + C = C_0 \cdot (1+r)^{(t)}$	D $1 + C = \frac{C_0}{(1-r)^{(t)}}$

7 Solve for the final concentration given this model of a decline of a toxin concentration (hourly dialysis)?

$$C = 700 \cdot (1 - 0.02)^{(8)}$$

A $7 + C = \frac{C_0}{(1-r)^{(t)}}$	B $C = C_0 \cdot (1-r)^{(t)}$
C $4 + C = C_0 \cdot (1+r)^{(t)}$	D $1 + C = C_0 \cdot (1+r)^{(t)}$

8 Solve for the final concentration given this model of a decline of a toxin concentration (hourly dialysis)?

$$C = 200 \cdot (1 - 0.08)^{(5)}$$

A $1 + C = \frac{C_0}{(1-r)^{(t)}}$	B $C = C_0 \cdot (1-r)^{(t)}$
C $2 + C = \frac{C_0}{(1-r)^{(t)}}$	D $7 + C = C_0 \cdot (1+r)^{(t)}$